

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Please amend paragraph [0050] as follows:

[0050] The channel chip 13 is a rectangular plate with dimensions of 50×76×3 mm, for example. The channel chip 13 is made from an elastic material having a self-sealing feature, is transparent or translucent and has translucency. The self-sealing feature of the channel chip 13 permits the channel chip 13 to ~~adsorb~~ adhere spontaneously without applying external force or using an adhesive merely by placing the channel chip 13 on the surface 12a of the glass substrate 12, so that the lower surface 13b coheres to the surface 12a of the glass substrate 12. Then, a sealing feature is brought out between the lower surface 13b and the surface 12a and is maintained, and therefore no liquid therebetween leaks outside. As a material having such a feature, for example, a PDMS (Polydimethylsiloxane) that is one kind of a silicone rubber is used. Examples of commercial items of the PDMS include, for instance, Dow Corning "Sylgard 184".

Please amend paragraph [0081] as follows:

[0081] In the first embodiment, the channel chip 13 having a self-sealing feature spontaneously ~~adsorbs~~ adheres onto the micropump unit MU structured by the micropump chip 11 and the glass substrate 12. On the contrary, as shown in Fig. 12, the microfluidic device 1E according to the second embodiment is structured by sandwiching a sheet 14 having a self-sealing feature between a channel chip 13 and a micropump unit MU including a micropump chip 11 and a glass substrate 12. The sheet 14 is made from a PDMS, for example. The sheet 14 is provided with connection holes 161 for connecting through-holes 131 formed on the glass substrate 12 and hollows 142 and 143 formed on the channel chip 13 respectively, and connection holes 162 for connecting through-holes 132 and holes 145 and 146.

Please amend paragraph [0091] as follows:

[0091] Accordingly, when the channel chip 13G is fixed to the micropump unit MU, the bosses 171 and 172 on the channel chip 13G are fitted into the counterbores 163 and 164 on the sheet 14G, which allows the sheet 14 to ~~adsorb~~ adhere spontaneously due to the self-sealing feature thereof. This further facilitates and ensures fixing of the channel chip 13 and ensures the positioning, leading to more stable operation of the microfluidic device 1G. Additionally, since no position deviation occurs during carrying, the microfluidic device 1G can be carried and handled easily.